Worries over highly radioactive fish prompt study

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By HIROSHI ISHIZUKA/ Staff Writer

Persistently high radioactivity in some fish caught close to the Fukushima nuclear plant has sparked a government investigation into the physiological basis for contamination and why radiation readings in some specimens remain hundreds of times over the official safe limit.

The Council for Science and Technology Policy, a government panel, is to study caught fish in order to calculate when they became contaminated—and where.

Since the Fukushima No. 1 nuclear power plant disaster in March 2011, the Fisheries Agency has measured the radiation levels of about 20,000 fish. The overall trend has been a decline in detected amounts of radioactive cesium.

However, in August, two greenlings caught 20 kilometers north of the Fukushima plant were found to have cesium levels of 25,800 becquerels per kilogram, the highest level ever measured in fish since the nuclear accident. The government standard for food is 100 becquerels per kilogram.

And in March, tests recorded a level of 18,700 becquerels per kilogram in freshwater salmon in the Niidagawa river near Iitate, a village northwest of the nuclear plant.

Furthermore, the concentration of cesium in freshwater salmon and char caught since March has not been decreasing, leading to restrictions on the shipment of such fish from Fukushima Prefecture and surrounding areas.

The forthcoming study will analyze cesium levels in the fish's otolith, a part of the inner ear. The otolith is widely used in such research because it is an organ where trace elements tend to accumulate over the animal's lifespan, leaving a growth record that can be likened to the rings of a tree.

Researchers hope to develop an understanding of when the fish were contaminated. They will also measure cesium levels in contaminated seabed soil near the nuclear plant.

The research will test the hypothesis that contamination in fish decreases in later generations, a theory developed from past studies of "ayu" sweetfish, which have a lifespan of about a year.

Studies have found that contamination levels in sweetfish have fallen significantly since spring 2012, leaving almost no fish now alive with levels that exceed government standards.

The study will cost 190 million yen ($2.4 million). The work will be carried out by the Ministry of Agriculture, Forestry and Fisheries.

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